muszd4nm[1] Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**HOW LONG IS A “DAY” ON THE OTHER PLANETS IN THE SOLAR SYSTEM?**

You remember that one rotation of Earth takes 1 day (24 hours). The other planets in our solar system also rotate, but it takes them different amounts of time to complete one spin. Fill out the chart below then answer the questions.

|  |  |
| --- | --- |
| **Planet** | **Length of Day in “Earth Days”** |
| Mercury |  |
| Venus |  |
| Earth | 1 |
| Mars |  |
| Jupiter |  |
| Saturn |  |
| Uranus |  |
| Neptune |  |
| Pluto |  |

1. List the planets with a “day” longer than Earth’s day.
2. List the planets with a “day” shorter than Earth’s day.
3. What happens to the temperature on the side of a planet that is facing the sun if the planet rotates slowly (has a long “day”)? (hint: think about a marshmallow on a stick spinning very slowly in front of a fire)
4. What happens to the temperature on the side of a planet that is not facing the sun if the planet rotates slowly?
5. Now think about a planet that rotates quickly. Would temperature range of a planet that has a shorter day (rotates more quickly) be bigger or smaller? Explain your answer.

6. Based on your answers to questions 3, 4, and 5, fill in the blanks of this sentence:

The \_\_\_\_\_\_\_\_\_\_\_\_\_ a planet rotates, the \_\_\_\_\_\_\_\_\_\_\_\_\_ the temperature range will be on that planet.

7. Look back at the chart you filled in for #1 to fill in the chart.

|  |  |
| --- | --- |
| Planet | Would the temperature range be bigger, smaller, or about the same as Earth’s |
| Mercury |  |
| Venus |  |
| Mars |  |
| Jupiter |  |
| Saturn |  |
| Uranus |  |
| Neptune |  |
| Pluto |  |